
WOMEN MINERS IN RAJASTHAN, INDIA

A REFLECTION ON THEIR LIFE,
CHALLENGES AND FUTURE

Gravis

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• IHR HILFSWERK

Women Miners in Rajasthan, India: A Reflection on their life, challenges and future

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PREFACE

Over centuries, mines in many parts of the world have remained an important source for revenue and livelihood generation. A large number of people around the world have historically worked in the mines and continue to do so. The Desert of Thar in India is among many such places, where mines of various types of stones have played a significant role in people's lives. Ironically, mineworkers working in these mines live lives full of pain, agony and deprivation.

In the stones mines of Rajasthan, over a long period of time, women have been an important part of the workforce. From small-scale jobs of helping in cutting and drilling, to carrying pieces of stones to cleaning the work area and to catering food and water needs of mineworkers – women have a role to play in all these. In spite of their valuable contribution to the trade, women get lesser wages, are exploited and often time are physically harassed. The complexity of situation worsens further with poor health status of these women and widespread illiteracy among them.

GRAVIS, as an organization working for community development, has always had a great faith in promoting women's rights and bringing them on to the center stage of community development process. In the mines of Western Rajasthan, GRAVIS has taken up several important initiatives to empower women working in mining industry. This report is an effort to illustrate plight of women working in mines, analyze the issues and suggest the way forward. It is our sincere hope that this small effort will give way to significant changes in these women's lives.

Shashi Tyagi

Secretary, GRAVIS

EXECUTIVE SUMMARY

The State of Rajasthan in India has rich deposits of minerals, and this natural wealth makes Rajasthan a state of mines and various minerals. Large quantities of Copper, Zinc, Gypsum and various types of stones are extracted in these mines, providing great support to the economy of the State. In the stone mines of Rajasthan, a large number of women work under difficult conditions. Mainly located in the Western and Central parts of the State, these stone mines produce sand stone and white marble to be used for construction. Estimate suggest that in Western Rajasthan districts, around 65,000 women mineworkers are currently working on daily wages.

More than 95% of mining activities in Rajasthan falls in the domain of the unorganized sector. Out of the total miners in Rajasthan, 37% are women and most of them are *dalits* and tribal. These women mineworkers are underpaid, malnourished, exploited and often times are harassed physically. They live with deep-rooted poverty and are vulnerable to diseases and social oppression.

GRAVIS, a grassroots organization in Western Rajasthan, has been working on the miners rights since the early 1990s. GRAVIS has been one of the pioneers in mobilizing the miners of Western Rajasthan and in starting a dialogue with various stakeholders (including government agencies) to protect the miners' rights. In conjunction with advocacy for miners' rights, GRAVIS has been also working on various innovative interventions such as education for the mine workers' children, micro-finance schemes, and health care to improve the overall condition of the miners. Over last several years, GRAVIS has been partnering with MISEREOR, Germany to advocate for mine workers' rights.

This study is a part of GRAVIS's pursuit to understand with greater depth the ground realities related to women miners. Although GRAVIS has conducted a few studies before on the miners' issues, there has been a pressing need to understand the problems that women miners face more closely. This study was conceptualized through a consultative process involving the relevant team members of the community and other stakeholders. It is envisaged that the outcomes of this study empower the women miners and contribute to the cause at a large level.

A SNAPSHOT ON THE STATUS OF WOMEN IN INDIA

1. Demographics :

Female population	%	48.26
Female population	million	496
Sex ratio	Per 1000 men	933
Life expectancy	years	66.1

2. Women's education

Female literacy rates in the total population (7+ age group)	%	53.7
Gender gap in literacy rate (7+ age group)	%	21.6

3. Women at work

Work participation rate for females	%	25.7
Total adult female workers in the total persons employed	%	19.3
Share of women in wage employment in non agricultural Sector	%	20.23
Average wage earning received per day by female casual labourer (rural) (gender gap: Rs. 20.38)	INR	36.15
Average wage earning received per day by female casual labourer (Urban) (gender gap: Rs. 31.23)	INR	44.28
Female employment of the total employment in Central Government	%	7.53

4. Women's health

Rural women with anaemia	%	58.20
Ever-married women age 15-49 who are anaemic	%	56.20
Pregnant women age 15-49 who are anaemic	%	57.9
Women with Chronic Energy Deficiency (CED) (15 to 49 years)	%	38.80
Mothers who had at least 3 antenatal care visits for their last birth	%	50.7

Institutional births	%	40.8
Mothers who received postnatal care from a doctor/nurse/LHV/ANM/other health personnel within 2 days of delivery for their last birth	%	36.8
Women suffer from gynecological problem	%	92
Maternal mortality ratio in the year 1995	per 100,000 live birth	440
Women age 15-19 who were already mothers or pregnant	%	16

5. Women in politics

Female electors in 2004	%	47.95
Women members of national parliament	%	9.07
Women participation in village Panchayati raj	%	40

6. Women at home

Female headed households	%	10.35
Women age 20-24 marriage by 18	%	47.4
Married women face physical abuse by their husband	%	40
Women faces domestic violence in any of its forms physical, sexual, psychological and/or economic	%	50
Currently married women who usually participate in household decisions	%	52.5

Sources of information

- Report on the state of Food insecurity in Rural India, December 2008, MS Swaminathan Research Foundation and World Food Programme
- Key Indicators for India, National Family Health Survey 3, 2005-2006
- A handbook of Statistical Indicators on Indian Women 2007; Ministry of Women and Child Development; Government of India
- The Status of Women: A reality check; Facts on inequality and crimes against women; Swayam; 9/2B Deodar Street, Kolkata 700019

CHAPTER 1: INTRODUCTION

In India, men outnumber women in the total population count of the country, which perhaps speaks volumes about the status of Indian women. In most developed countries it has been seen that if equally treated (in terms of nutrition and health care), women outnumber men as women tend to live longer than men by at least 5 years. Typically, in most developed countries, there are 103-105 women for every 100 men. With a present sex ratio of 933 for every 1000 men, which compelled Amratya Sen to state that India needs to account for its missing women, the gravity of the situation can never be overemphasized.

Interestingly, even within India the difference between the proportion of women between communities with greater respect for women and communities suppressing women is evident. For example, the sex ratio for women is much higher in the tribal communities of India than all other caste groups in the country. Despite the fact that the tribal communities have much lesser access to resources and opportunities, the sex ratio is in favour of women simply because in these communities women are treated fairly.ⁱ

Despite the discriminations and deprivations in treatment and opportunities, women have and continue to play a vital role in the India's growth. History and contemporary age are replete with women leaders and visionaries who have contributed in various fields. At present, women work participation of the booming Indian economy is 25.7 percentⁱⁱ. Over the years, in urban India women's participation in the work force has been quite impressive. For instance, in the software industry 30% of the workforce is femaleⁱⁱⁱ. They are at par with their male counterparts in terms of wages and position at the work place. In rural India, agriculture and allied industrial sectors employ as much as 89.5% of the total female labour. In overall farm production, women's average contribution is estimated at 55% to 66% of the total labour.^{iv} Yet, overall "there are far fewer women in the paid workforce than there are men. Women are undervalued and unrecognized. Women work longer hours than men, and carry the major share of household and community work, which is unpaid and invisible."^v

TABLE 1: STATUS OF INDIAN WOMEN

- The Human development report of the UNDP ranks India 98 in its Gender related Development Index.
- Also, according to UNDP, the ratio of average earned income in India (female to male) is 0.38, which is less than any of the BRIC countries.
- With adult literacy rates of 47.8 percent and the youth literacy rates of 68 percent, Indian women trail behind their counterparts in Brazil, Mexico, China and Russia^{vi}.

In the recently published global gender gap report (2009) by the World Economic Forum, India ranks near the bottom, at 114 out of 134 countries, ahead of Pakistan (132) but well behind China (60) and Bangladesh (94) in providing adequate opportunity to the women in the work force. The report further states that women's participation in the work force is severely hampered by barriers to entry and growth in the work-force, particularly the lack of a work-life policy.

The mining industry in India constitutes a large portion of the unorganized sector of the Indian economy and workforce with a recorded growth of 5%^{vii}. Mining in India is concentrated in certain pockets, one of which is in Rajasthan – where there is a rich deposit of minerals and stones. Rajasthan holds 1,324 leases for major minerals, 10,851 for minor minerals, and 19,251 quarry licenses. Mining is the second largest industry in Rajasthan, providing employment to 2.5 million people and generating over 8 billion rupees in government revenue each year. The state has reserves of 44 major and 23 minor minerals, including the largest abundance of wollastonite, jasper, zinc, marble, sandstone and limestone. It is also the leading producer of phosphorite, silver, fireclay, calcite, and lead, and is the only state in India where mining for asbestos is still permitted.^{viii}

Mining in Rajasthan (as in other parts of the country) is traditionally looked at as a “masculine” occupation, but over the years statistical data and qualitative research have demonstrated the growing number of women miners across all kinds of mines around the world. Many studies have also pointed out that due to the insignificance attached to women miners, their plight is worse than their male counterparts. Despite all the past studies, there is still a gaping hole in understanding and appreciating the contribution and the needs of the women miners. Therefore this study conducted a detailed research to understand the various aspects of women miners' life in Rajasthan.

GRAVIS, a grassroots organization in Western Rajasthan, has been working on the miners rights since the early 1990s. GRAVIS has been one of the pioneers in mobilizing the miners of Western Rajasthan and in starting a dialogue with various stakeholders (including government agencies) to protect the miners' rights. In conjunction with advocacy for miners' rights, GRAVIS has been also working on various innovative interventions such as education for the mine workers' children, micro-finance schemes, and health care to improve the overall condition of the miners.

In response to the growing number of women miners and their increasing issues GRAVIS has already conducted multiple studies in the past. In its publication “Tears of Dust” GRAVIS sought to highlight the challenges that women miners face in their everyday life. This publication opened the door for further investigation as it became obvious that there was a need to conduct a more extensive study to capture the needs of the women miners well. Consequently this study was initiated with the purpose of further consolidating the research base on the women miners in Rajasthan.

THE GOAL AND OBJECTIVES

The overall goal of the study is to identify the needs, contributions and challenges of the women miners in Rajasthan. To meet this overall goal, the following objectives are listed:

- To present women miners overall situation in a comprehensive way (historical, social, economic, professional, health, and political based appraisal of the situation)
- To assess the contributions made by women miners in the mines of Rajasthan
- To suggest improvements in women miners working conditions by presenting a few good practices and key recommendations

This study is a part of GRAVIS's pursuit to understand with greater depth the ground realities related to women miners. Although GRAVIS and Hedcon have developed a few studies before on the miners' issues, there has been a pressing need to understand the problems that women miners face more closely. The expectation from this study is that it will help both GRAVIS and Hedcon, partners and other stakeholders in developing strategies for the future to address the problems of women miners in a more comprehensive way. This study was conceptualized in the summer of 2009 (April-May) through a consultative process involving the relevant team members of both agencies and other stakeholders. Hedcon took lead in developing the concept note, methodology and tools to conduct the study and GRAVIS assisted Hedcon with access to relevant information and resources.

THE STUDY AREA

The area for the study was selected from the mining area where GRAVIS has been intervening for the past 17 years to improve the lives of the miners, including the women miners. A sample of women miners was drawn from each mining site across four districts where GRAVIS works – Jodhpur, Bikaner, Barmer and Makrana. The mines in the four districts are mainly sandstone, clay, granite, marble and salt mines. These mines are open quarries with high threat to life and safety.

DESCRIPTION OF THE SAMPLE AREA: The sand stone mines of Jodhpur are trenced across an area of 250 square kilometres. The pink coloured stone is in high demand around the world because of its durability, and resistance to heat and cold. Most of the mining in the Nagaur district occurs near the city of Makrana, where the famous marble that was used to build the Taj Mahal is excavated. There are estimates that reserves of 55 million tonnes of the mineral still remain^{ix}. Mining for marble is dangerous and requires crevices to have depths of approximately 300 feet. In the Barmer district salt mines are prominent, the mineral excavated

from Pachpadra Tehsil, a salt belt that stretches for 45 square kilometers from Bagundi to the village Gopadi. The average salt mine is 20-30 feet deep and 50-80 feet wide. Bikaner is famous worldwide for its clay mining. Only 10% of the clay excavated is used in Rajasthan, with the remainder exported to countries such as Bangladesh and Bhutan, or fulfilling 60-70% of India's own needs. Approximately 35,000 people are involved in excavating, and digging out clay in Bikaner district.

TABLE 2: GRAVIS' WORK AREA IN THE MINES OF RAJASTHAN

District	Area	Mineral	Working since	With # of miners	Approx. number of women in the working area ¹
Jodhpur	Sursagar	Sand Stone	1992	120,000	40,000
Barmer	Pachpatra	Salt	2005	10,000	2,000
	Siwana	Granite	2008	10,000	1,500
Bikaner	Kolayat	Clay	2005	25,000	10,000
Nagaur	Makrana	Marble	2001	35,000	10,000

THE METHODOLOGY

This document draws from both primary and secondary data. While an extensive literature review was conducted to provide a basic framework for the contents, primary data was collected through a random sampling method in four specific mining areas of Western Rajasthan: Bikaner, Barmer, Markana and Jodhpur. The major sources of secondary information are articles from journals, books, scholarly notes, websites and research studies (as cited in the bibliography). The major sources of primary data collection are questionnaires, Focus Group Discussions (FGDs), personal interviews, photography, direct observation and case studies documentation.

The profile of women miners was developed from a review of existing literature, published work and information from FGDs, personal interview and individual survey. The contributions made by women miners to the industry came about from a desktop review of past literature on the topics, a survey with formatted questionnaire and FGDs with women miners groups. Certain

¹ These figures are approximate and as per personal experiences of the team

cross reference of information with other regions and women miners was also done through literature review. The good practices and recommendations section was developed mainly by examining the interventions and impacts of GRAVIS' projects in the mining areas.

Two predesigned questionnaires with both closed and open questions on professional, gender, social, economic, historical and health profile of women miners were applied in the field with a random selection of 120 women working in the mines. Structured personal interviews were conducted to understand the women miners' personal views on the conditions of work or preferences and specifically to understand sensitive issues such as physical/mental abuse to them and/or the child workers which cannot be discussed in front of others. . Thirty two Focused Group Discussions (8 in each target regions with participation of 8 persons on an average) were conducted. FGDs were conducted with a broad range of participants like older women who have worked in mines, women presently working, women in Self Help Groups (SHGs) and men and women together to understand their views on women in mines, their contribution, problems and prospects. A few specific cases were identified for documentation of case studies. Multiple field visits were conducted to understand the role of women and the working environment in the mines and photographs were taken of circumstances that needed to be highlighted.

The survey, FGDs, personal interviews and other tools were used on the sample by a group of field staff members and volunteers in the months of July-August, 2009. The data entry and analysis was conducted in the month of September and immediately after that the drafting of this study started. The drafting was once again done through a consultative process of feedbacks and reviews by various staff members from GRAVIS.

The last chapter on conclusions and further recommendations was developed through a consultative process by sharing the draft of this document with key individuals in this field and with mining labour unions.

LIMITATIONS OF THE STUDY

The limitations of this study are caused from three reasons:

- The sample size of the primary sources of information was small compared to the vast number of women miners in the mines of Rajasthan thus limiting our understanding of the issues this study tried to enquire. Given Rajasthan has huge number of mines and close to 2.5 million workers, the sample is like a drop in the ocean. However, since this study is focusing on only four districts, the small sample size has been able to provide some significant insights into the life of the women miners in the targeted area.
- Survey bases studies have the potential of bias from the aggregated results. Although the aggregated data gives a clear indication on opinions and preferences, these results could get tipped by the aggregated opinions of the non-respondents or women who were not in the sample.
- Many women respondents were not very open in answering questions related to exploitation and abuse. Even though tools such as confidential one on one basis personal interviews were applied, there was still not much success gained in extracting sensitive information.

CHAPTER 2: WOMEN IN MINING INDUSTRY

The census of 2001 clearly states that in India women comprise around 14 percent of the labour force in the mining sector. However, due to the extent of informalisation of women's labour, the actual proportion of women working in the mining industry is as high as 33 percent and most of the women labourers come under the category of marginal workers. Yet, when it comes to giving the women miners their due credit and their due rights, very little has been done or said. In general, women's participation in the mining industry of India is widely prevalent across all sub sectors. For instance, in the state-owned coal mines, women constitute almost 5.6 per cent of the workers and around 17 per cent of marginal workers.

"The participation of women is highest in dolomite mining (33 per cent), mica mining (25 per cent), clays mining (23 percent), stone quarrying (23 per cent), salt extraction (23 per cent), manganese ore mining (21 per cent) and gemstones mining (19 per cent), indicating that women's labour is concentrated in the small-scale or informal mining sector. Even within these sectors, women's participation is higher as marginal workers in dolomite mining (40 per cent), mica mining (40 per cent), clays mining (35 per cent), stone quarrying (38 per cent), salt extraction (59 per cent), manganese ore mining (40 per cent) and gemstones mining (34 per cent). In gold ore mining, women comprise 57 per cent of marginal workers, with chromium ore mining also employing women as 38 per cent of the marginal workers^x."

The factors behind women's entry into the mining industry are mainly attributed to poverty and the need for additional household income. The women miners from the coal mines explained that displacement and loss of land have adversely affected their lives and livelihood, economic and social status, and health and security. Displaced women are found in small private or unorganized sector of mining related activities. These women have no work safety measures, are susceptible to serious health hazards, and are exposed to sexual exploitation.

WOMEN MINERS IN RAJASTHAN

More than 95% of mining activities in Rajasthan falls in the domain of the unorganised sector. Out of the total miners in Rajasthan, 37% are women and most of them are dalits and tribal.

It is also to be noted that in Rajasthan 95%^{xi} of mine workers are migrants of which, a big chunk of 60% to 70% are from within the state and travel between districts throughout Rajasthan and the rest are either from bordering states like, Gujarat, Madhya Pradesh, Uttar Pradesh or from far-away states like, Tamil Nadu, Andhra Pradesh, Bihar, Orissa, and West Bengal. The recurring droughts have pushed a larger proportion of the labour force in Rajasthan into mining as that is the only consistent source of income for them. However, many times the interstate migrants are seasonal migrants as they go back to their own community at times to pursue farming or other traditional livelihoods. On the other hand, the migrants from outside of Rajasthan have turned out to be the permanent settlers in some of the mining areas.

Although migration is supposed to be a coping mechanism to turn to alternative livelihood during the drought years, over time it has become a regular feature. This trend is more prominent in families with multiple sons as then they take turns in going outside their community to work. Some of them go out to work for periods of up to for longer period that run up to 6 months or more. The relatively better financial status of the migrants has lured many people to join the migration stream and the number of migrating people has thus increased over time. It is to be noted that most seasonal migrations are organized under a thekedar (contractor) who stays in touch with the mine owners. These thekedars arrange and organise the required number of labourers from their own or neighbouring villages and charge a commission on every labourer's wage.

Like elsewhere in India, the women miners in Rajasthan work in the mines mainly in three different ways—as workers in the extractive process, in sorting and crushing of the preparation of minerals, and as clerks, peons, secretaries and nurses etc. Women are engaged mainly in clearing debris and pebbles from the mine, and doing other odd jobs. Female workers are usually paid far less than male workers^{xii}. Various studies have indicated that overall in India on an average while a male worker gets between Rs. 60 and Rs. 150 a day, female workers earn a meager Rs 30 to 40 a day for doing work that's often more backbreaking. The minimum wage for Rajasthan with effect from 1st March 2008 for unskilled labour work is Rs. 100, for semi-skilled Rs. 107 and for skilled work it is Rs. 115^{xiii}.

THE PROFILE OF WOMEN MINERS

The roles that women and men play as mineworkers vary and women's participation as active workers with equal contribution often goes unnoticed. However if one delves deeper and takes a look at the range of work men and women are engaged in the mines, one will be compelled to destroy many myths about gender roles of men and women in the mines. Women's work in mining shows that the spheres of men and women's work are not necessarily separate but overlap. "Women's work in mining presents the mines as special workplaces; as the 'mineworker' becomes visible as gendered subjects, the mine-pits reposition themselves as gendered places"^{xiv}. By presenting a comprehensive profile of the women miners, this chapter will try to illuminate the many sides of the women miners and will bring to light their contribution to this sector.

Here are a few key facts on women miners in Western Rajasthan, as demonstrated by a survey conducted by GRAVIS in 2003^{xv}:

- Nearly 86% of women surveyed belong to scheduled tribes and scheduled casts.
- All the women are employed as unskilled and irregular labourers, although some women have been working in the mines for up to 30 years.
- The women said that their attendance is never recorded by any mine.
- No woman was found to possess cultivable land.
- About 88% of the local girls were married before reaching 18 years of age.
- Only 6% get a job for more than 20 days per month.
- Despite the similar workload, women are paid less than men.
- The government has set the minimum wage at Rs. 60 per day, but not a single woman surveyed received that amount or higher. Almost 90% of the women working for 6 to 8 hours received Rs. 45 or even less.
- An agent, 'Jimmedarni,' helps the women to work in the mines, and receives a part of their income in return.
- Symptoms of anemia were found in all the women workers and 30% carried the symptoms of silicosis.
- The rights provided by the constitution and the special rights for women under the Mines Act of 1952 have not been executed.
- Women work in the mines mainly due to:

- Husband's death from mine-related disease or accident.
- Incapacitation of husband from disease or accident
- Several children to care for.
- Money advanced for family matters by the mine owners
- Husband's drug addiction.

Ironically, the needs and issues of women miners in 2009 are not very different from the ones identified in 2003. The following part of the study reveals a more updated picture on the challenges women miners face in Western Rajasthan and provides a holistic profile from six aspects: historical, social, professional, economic, health status and political.

HISTORICAL

Mining is considered to be a job for men as they take great risks everyday to go down into the mines to earn bread for their family. Furthermore, the isolated ways in which miners' work and the conceived risks associated with mining have led to strong male solidarity. Women are seen as belonging to the mines because of their men. The isolation, risks and solidarity of earlier mines have endowed the manual labour with attributes of masculinity (Burke 2006). Even when technology has contributed to improving the working situation in mines, the halo of risk and 'dirty' work has continued to surround mining (Lahiri-Dutt 2006). This masculinity associated with the work in mining has led to various myths around the entry of women in mines and their roles and contributions and led to the propagation that women are primarily "unfit" for mining.

In an effort to trace the historical profile of the women miners, research was conducted both quantitatively and qualitatively in 4 sample mines of Western Rajasthan. However, due to the insignificance associated with the role of women miners, there is very little evidence or record of their entrance into the mines. The testimonies of the respondents from this study say that most women started working in the mines due to financial compulsion.

Rameri is a forty year old woman who worked most of her life in the mines. Following the footsteps of her mother and grandmother, and then her mother in law, Rameri spent many years breaking stones in the mines. She recollected how poverty led their induction into the mines. She also said how thousands of women like her are working at the mines from a very tender age. They work for years doing the same tedious job of breaking and loading stones.

Now, although her mind still delves in those dusty days, her body protests those thoughts as the dust from the mines has filled up her lungs forever. Her poor health has put her out of work for a long time now. However, despite generations of dedication to the mines and years of working, the mine owners refuse to provide any compensation or job opportunity to Rameri. Thus, Rameri's life has spiraled further down into the darkness of the same poverty that she has been trying to avoid all her life by working at the mines.

In Barmer, the women participants said that they have been working in the mines since the mines were discovered, decades ago and for many generations with their families. Most of them started to work in many to increase their income at home and to help their husband on bringing food to the house.

The women further said that the mines are very important to them since these are their means of work and if it wasn't for the mines, they would not have any kind of work. They could not recollect any stories of change for women in the mines. They have always been

the supplement, the subsidiary and the support to the main work that is being done by the men. All of them unanimously said that although they work to provide support to the men, their job has been equally tough.

The women miners explained that they started working in the salt mines because there were no other job opportunities available to them. The women in Barmer started working in the mines around three generations ago on the advice of their family or immediate community elders. The mines represent their way of life as the survival of the family at times depends on the mines only. They have no knowledge of history beyond what life is at present. And it seems that the complete absence of their historical association with mines does not worry them. What they worry about is their family and the difficult conditions under which they live. When asked if they have ever fought for improvement in their working condition or to get a raise in their wage, they said that apart from small incidents of protest here and there, no major movement against unfair mining practices has ever been organized. . A small incident in one of the samples mines if worth mentioning here:

Jamu, 45, is a woman mine worker whose husband suffers from silicosis. Jamu labours on the mines loading smaller rocks into a tractor. She does not believe that there will be any material changes to women mineworkers' conditions in the mines. The previous year they had organized 2 – 3 strikes to protest, although the only positive outcome from this was a small increase in their daily wage from Rs. 7 to Rs. 15, she says. Jamu aspires for better salaries and better access to basic facilities such as drinking water and toilet facilities. She was one of the older mine workers in the area, but has not witnessed any radical changes in the working conditions of women mineworkers over the decades she has spent on the mines.

In Jodhpur, the women reverberated the same words as the women from Barmer. They said they have been working in mines since mines started. And the primary factor behind their joining the mines is financial needs of the family. Many women miners are the bread winners for their families. Especially, when men suffer from injuries or trauma from accidents or become infirm from diseases or when men die, women need a source of income and being most familiar to the mines that is where they turn to for supporting their families.

Table 3 suggests that the women miners in Jodhpur, Makrana and Bikaner are mostly migrants and have mostly come from other villages/districts within Rajasthan. The pressing pressures of poverty were clear for migration from their native places. All such migrants were found to be land less or had migrated from their places during drought periods and now are settled in the mining areas. In Barmer however, quite contrary to the trend in the other three sample districts, 100% of the respondents are local residents. They are mostly from a caste group called Khorwal who are historically engaged in the salt mines generation after generation.

TABLE 3: MINGRANT WOMEN MINERS

Districts	Migrant	
	Yes	No
Jodhpur	85%	15%
Barmer	0%	100%
Makrana	93.75%	6.25%
Bikaner	90%	10%

Table 4 indicates the number of years the present women miners have been working on an average in the mines of Western Rajasthan. Most women miners from the current work force have been working for the last 10 to 15 years, while there are still more than 10% percent women workers for longer than 20 years in the mines of Jodhpur, Barmer and Markana. This implies that most women started working in the mines from their teenage and thus were pushed into the drudgery of hard labour from a very early phase of their life. About 96 percent women started working in these mines before the age of 18. Their active involvement starts in these mines at the age of 13 years.

TABLE 4: NUMBER OF YEARS WORKING IN THE MINES

Years	Jodhpur	Barmer	Makrana	Bikaner
0 to 5	5%	21.05%	12.5%	5%
5 to 10	20%	21.05 %	31.25%	35%
10 to 15	50%	42.10%	37.5 %	45%
20 and More	25%	15.79%	18.75%	15%

SOCIAL

The social profile of women miners revolve around their role in a household, most of the times which is that of a wife. The survey conducted by this study indicated that most women miners are married. In Markana for instance 68.75% of the women miners are married. A substantial number of women miners are also divorced or widows, signifying that they are the main breadwinners for their families. The previous study on women conducted by GRAVIS shows that about 92 percent women married before the age of 18^{xvi}. Overall 79% of the women miners' husbands are currently working in the mines, whereas approximately 20% of the women miners used to be in the mines. A large proportion of women whose husbands were working in the mines are currently sick or have passed away, where some have started working in other sectors.

“At 50 years of age, Rameshwari Devi can't remember when she started working in the mines. Life as a mineworker has left her with nine miscarriages and no children. Since her husband could not work because of his drug addiction and asthma, she was forced to work through her pregnancies in order to take care of him and herself. And unfortunately, the only opportunity for work is in the mines.”

A VILLAGE OF WIDOWS

Kaliberi in Jodhpur district is a black spot in the history of mines in Rajasthan exemplifying the extent to which the unsafe mines can destroy the social fabric of community life. From accidents and diseases, sixty households in this village have lost their male family members. One family had four sons, all of who died within a span of 10 years and now this family is left with four widows and their children. The eldest son's widow said that she lost her husband from silicosis. There are sixty widows in this village now, turning the village to almost a village of widows. Most widows are under 40 years, and now only 35 men adult men live in this village thus skewing the demographics in the village very negatively.

The social profile of the women miners revolve around household chores and the duties to their families. The women miners daily activities show a strong tendency to stay involved with domestic duties rather than have a social life of their own where they can sit with their friends, pursue their hobbies or indulge in their interests. The women wake up at the crack of dawn to finish domestic work such as cleaning, fetching water, collecting wood for fire, cooking and then they set course to the mines. After working all day, they come back in the evening to again restart their household chores which now involve cooking dinner and cleaning. The men help the women miners at times with looking after the children and fetching water but that's rare. Most women miners who have small children/toddlers who cannot be left alone take their children to the mines with them.

“Santu Devi, 25-years-old, works in the mines just to earn 40 rupees, which is barely enough to take care of her husband, who is suffering from tuberculosis, and children. However, even when she comes to the mine in the morning, she is not guaranteed work. Sometimes she has to wait all day for an opportunity that may not come.”

THE HARDENED HANDS' DAILY ROUTINE

Geeta's dream of ridding herself from the walls of the mines after getting married did not come true, On the contrary, mine seems to be the only common factor between her father's home and her husband's home. Poverty compelled Geeta to go back to the mines after marriage, and so her life is centered around her work in the mine. Throughout the year, Geeta's day begins at the crack of dawn as she enters her kitchen to prepare meals and arrange for drinking water. At times, in the face of the rush to get all household chores done in time, she skips her own breakfast. By 9 in the morning, she leaves for the mine with her two toddlers at tow. At time she has to go around in mines looking for daily jobs, and when she gets her turn its mainly the job of pounding stones and loading those into storage areas. Deprived of any facilities such as shade to rest, toilets or drinking water, Geeta's whole day goes away working on her daily job and by dusk she gets ready to leave for home. On the way home, she picks up grocery items from the stores, and on reaching home she attends to the goats at home. Then she re-enters her kitchen and makes dinner for her family members. Her husband at times makes an appearance to demand money for his alcohol and if not given beats her up, thus taking Geeta's daily routine to another extreme. However, Geeta takes this abuse as a part of her life and gets back to her daily routine rightaway, which towards the later part of the evening *revolve around feeding her children and tucking them in their bed. Finally, Geeta lays down to rest until the sun rises again...*

Twelve year old Suki and her older sister toil unhappily in the salt mines of Barmer district, earning a total of sixty rupees per day, barely enough to cover household expenditures. The two sisters suffer constant abuse from the mine contractor, and their lives get worse when they arrive home in the evening, exhausted and hungry. Instead of food and rest, they face the wrath of Bharm Ram, their alcoholic father. Bharm Ram stays at home, suffering from severe cases of asthma and tuberculosis; without anything better to do, he takes liquor each night and beats his daughters while drunk.

Suki has quietly endured the abuses at work and at home; to ease the pain, she has developed the habit of chewing guthka. Circumstances have pushed Suki into a harsh life in the mines: her mother died three years ago from child birth, and her alcoholic father has not worked for years. Circumstances have gotten worse since she started working. She now suffers from vertigo and weakness, because her diet consists almost entirely of onion, chapattis from millet, and red chili.

"What about green vegetables and rice?" we asked.

"Green vegetables and rice?" Suki burst into laughter. "That's festival food."

TABLE 5: MARITAL STATUS

Status	Jodhpur	Barmer	Makrana	Bikaner
Married	70%	78.94%	68.75%	65%
Unmarried	5%	0%	0%	10%
Widow	25%	21.05%	31.25%	25%
Abandoned	0%	0%	0%	0%

TABLE 6: HUSBANDS' PROFESSION

	Jodhpur	Barmer	Makrana	Bikaner
Is a miner	73.68%	63.16%	68.75%	66.67%
Was a miner	26.32%	21.05%	31.25%	27.78%
other works	0.00%	15.79%	0.00%	5.56%

Women miners are aware that their children need to go to school. The survey results clearly indicated that in Makrana, 75% of the women miners' children go to school. However, the other three districts Jodhpur, Barmer and Bikaner have not fared that well in this category as only 60%, 68% and 40% of the women miners send their children to school respectively. This presents a grim picture as it implies many children are either dropping out of school or are staying illiterate. There are number of reasons contributing to children not going for education like economic compulsions, gender bias, availability of school and motivation. Where habitations have mushroomed due to availability of work in mining areas, it is difficult to find schools in proximity. Although many of such habitations are almost permanent. Added to that the absence of dedicated teachers who would seek out support and encourage miners to send their children further aggravate the problem. Although there is no question on necessity of education but the formal primary education which is promoted is not allowing labourers to identify a path to look for opportunities in other sectors to earn livelihood.

THREATENED DIGNITY, THREATENED LIFE

Sita devi, a 30 year old woman lost her husband to Silcoisis. To bring up her four children, she started working in the mines of Jodhpur district. Her youth and vulnerability did not remain hidden with the mine owner, contractors and their relatives for very long. They started exploiting her physically as there was no body at her home to raise voice against them.

On 8th March at 11p.m. a man (relative of the mill owner) came and forcibly took Sita devi with him and raped her. Her 11 years old daughter could not understand any thing and started crying. All basti community gathered but could not find out that where he has taken away Sitadevi. After two hours the same person left Sita in the outer skirts of Basti.

When rescued, the community members found that Sita devi was traumatized and was crying. From her condition it was evident that she was raped, but she kept her mouth shut, as she knew that by not doing so she would have to face horrible consequences. Like Sita devi there are many other women who are being exploited by their mine owners and their relatives – the question is how can lives of women like Sita Devi be more secured? How can women miners be given greater respect and dignity?^{xvii}

*(*To maintain confidentiality names of characters are changed.)*

Mamta and Santosh, 14- and 13-years-old, respectively, help their mother fill a tractor trolley with debris each day so she can collect 40 rupees. Workers are paid only if they fill an entire trolley, and since their mother is physically weak, she cannot accomplish this task by herself.

One common feature that was noticed in all the mines was the number of children. When enquired to the reason for this, it was told that children were in the mines simply because there was no one at home to care for them. The supervisor's response, when asked why these children did not attend school, was that parents could not afford to send all their children to school. Confronted with the information that school education was free for children, the supervisor countered that it was only free for one month, although this was factually incorrect and education for children is free for the first few years.

Mine owners take advantage of children playing in the mines by offering them paltry sums for tasks such as clearing small rocks. Soon children and parents are tempted at the prospect of children supplementing to the family income and see little value in their children foregoing this to get an education. Mineworkers worry about their children's safety if they were to go to a big city for an education or better jobs. Some mineworkers professed that this mindset was slowly changing. In the light of the limited opportunities in mines, a few workers now prefer that their children move to cities for a better life and opportunities.

On further inquiry it came to light that one of the reasons children did not go to school was simply because it was too far away, but more often children help their parents in the mines. Children do get paid and often as much as their parents. Younger children (under the age of 6) are mostly unpaid workers, but add value by helping their parents finish the work. Although mine workers are paid by the hour, they have to finish a stipulated amount of work as directed by the owner in any given day. Having their children contribute as additional work hands simply helps mine workers complete the work that is expected of them that day.

Women mineworkers were quick to make excuses when faced with questions from us about the reasons their children were working in the mines. The responses varied from children having a day off school or simply visiting their parents for the day. Similarly, we found that when we probed them about the mine owner's treatment. The unanimous response was that the owner treated them well and they had no complaints. The fear of reprisal from the mine owner and job insecurity caused mineworkers to lie about their situation. The labourers mistook us for government officials - another reason for them to be dishonest in their responses. Despite the appalling work conditions in these mines, availability of cheap, willing labour and competition to work in the mines is quite high. The mine workers feel that they are in no position to form a trade union or make demands of any kind. Such behaviour could cause them to be summarily dismissed by the mine owners.

PROFESSIONAL

The women miners in the mines are traditionally looked at as the unskilled or semiskilled labour force. However, if one looks at the type of work the women miners do, one would clearly see that to deliver those tasks, certain skill sets are required which are either taken for granted or not recognized. There could be several reasons behind keeping women miners in the category of semi skilled/unskilled labour force. The primary reasons are the unwillingness to pay more, or the refusal to enhance women miners' professional status.

This study has found out that in the salt mines, women mostly carry the salt men take off from the salt's lakes to the containers. This job requires them to climb the hill carrying a heavy weight on their head. After compiling the salt pyramid both men and women pack the salt in bags and take those bags to the waiting transportation. However and interestingly, they don't get the same payment as men (men are paid Rs. 100 a day and women are paid Rs. 60 a day). A few women miners accepted this discrimination by saying that men work more than them, since the men have to be in the water all the time and take the salt out of it. Nonetheless, the weight that the women miners carry over the hill is undervalued. Given this background, one woman miner accepted that both men and women do the same amount of work and another responded that women do more work.

Many women miners said that at work their only focus is to earn money (i.e. to fill as many tractor loads as possible) and thus social life there takes a backseat. Even though most women said that they are not treated unfairly in the mines by the fellow men, the point is that definition of unfair treatment is something that comes only with awareness on gender equality that is not present among most women miners. Even then many women complained of discrimination.

EXPLOITATION AT WORKPLACE

Professional growth is possible only in the most conducive environment. Every woman has a right to a respectable professional environment. However, a survey conducted by Hedcon in 2005 demonstrated the level of exploitation that women are subjected to in the mines of Rajasthan. People from different segments of the society (politicians, social-workers, journalists, Government servants, mine-owners and labourers) were interviewed in four districts of Rajasthan (Jodhpur, Barmer, Bikaner, Nagaur) for their opinion. Almost all the people agree that the women labourers are exploited in the mining field. About 42 percent of the people are of the view that women are the most exploited ones, while 37 percent think that women and children both are exploited. In the respondents' opinion, it is women's physical, social and economical fragility that have oppressed them the most. People agree to the fact that their social and economical empowerment is insufficient to provide security through the laws made for them. Among the other reasons suggested by various sections of the society, the poverty, illiteracy, unawareness have added to the gravity of the problem.

Kali Bai's story is not very different from other women miners' story. After losing her husband to Silicosis, and due to the heavy debt from borrowed money to get her husband treated Kali Bai joined the mines. This was a big problem for her because if she spent all her wages in paying back the advance then she was left with no money at all and hence, she was left with only one option which was to involve her children in this work too. And so her son, Chandan and daughter Guddi both aged 10-12 years joined her instead of taking education. Kali Bai and her children's job is to load the trucks with broken stones. To keep a tab on the number of trucks filled so that she knows how much pay to expect, Kali Bai draws lines in the courtyard of her house. However, when the time for payment comes, Kali Bai's lines are always ignored by the mine owners. They call her names for trying to be smart, and drop her calculation on account of her illiteracy. Thus, discriminated and ridiculed, Kaili Bai continues to live on the mercy of the mine owners for her payment.

The number of hours logged in by the women miners vary from 4-12 hours daily. In Jodhpur, Barmer and Makrana most women work upto 8 hours daily, while in Bikaner, 70% women work upto 12 hours daily. The women miners in all four districts work for 4-7 days in a week, with a greater number leaning toward seven working days in a week. This implies that most of the women miners with children probably have to carry their children to the field and expose them to the harshness of the mines. This also has an implication on the gradual induction of the children into the, mine labour force and depriving them of a fair childhood.

For women miners it's very difficult to step out of the title of unskilled miners since there is no formal upgradation of skills or recognition of their work. It is a common practice for women miners to improve their skills by watching other miners and most of the times they end up doing the same amount of work as the men yet they are always seen in support roles.

When the women were asked about any livelihood trainings that they have received, only 6.57% women responded with a positive answer while 93.42% of the women gave answer in the negative. Surprisingly, the women who claimed to have received trainings could only develop their skills on other livelihoods like stitching, candle making, making traditional food for sale like puppadums and pickles. None of them could receive any formal or informal training on their mining work. The only way they could gain better understanding of the mining is through watching other mineworkers.

The survey also revealed that women miners skill set go beyond miners duties, as they are capable of doing much more than laboring in the mines. When enquired what kind of activity they can do best only 36.62% put mining in response. Among other activities, 19% reported they can farm (agriculture), 11% said they can rear livestock, 9% said they were capable of running businesses, while close to 8% said they were best at tailoring/stitching. This finding suggests that most of the women miners would like to be self-employed to be financially independent. Given that women miners have so many responsibilities at home, self-employment with flexible hours seems like a natural choice. Furthermore, the privacy of

space and independence from self employment make the women less vulnerable to exploitations at work place.

ECONOMIC

The average income reported by the women miners in the salt mine is Rs. 900 per month, considering that they only labour for 15 days in a month since the other 15 days they wait for the salt to be deposited in the water body.

The survey from this study shows that most women miners worked to increase the overall monthly household income, which they have been able to achieve. So, the major economic impact of their livelihood is that that have been able to feed their children and in some cases they have been able to send some of their children to school. In the previous sections, it has been explained how a vast majority of women miners are widows or divorced/abandoned/single and are thus the main breadwinners of the family. A large proportion of women miners' husbands are also home/bed ridden due to ill-health from working in the unhealthy conditions of the mines for too long.

Gulab Devi, widow and mother of four children, works in deep mine shafts to earn 50 rupees, instead of 40 rupees for working above ground. This is contrary to the Mines Act of 1952 that states women cannot work below ground. However, since Ms. Devi does not have a husband to help support her four children, she needs every rupee she can earn.

The key question is: has the income enable the women miners to elevate their individual economic status in terms of savings, purchasing power and independence. Since they use most of their money to buy foods and other essential items for their family, the rise in their individual economic status has not taken place. Added to that they have to give away a substantial portion of their income to their husband's demands such as to buy alcohol and if they do not give in to their husbands' demand they are at a risk of getting physically abused. During surveys and field based research several women said that they rarely save or keep their hard earned income, as most of the times the additional money goes away to their husbands' addiction. And if the women refuse to give their money away to their husbands' addiction, they are threatened with physical violence.

Lakshmi, 40, works in the mines loading small rocks in the truck, earning Rs. 150 for every completed truck load. Lakshmi's husband also works in the mines, but squanders away all of his earnings on alcohol and she has no choice but to work in order to support her family. Her husband often subjects her to beatings or threatens to sell her gold bangles if she refuses to give him money for alcohol. Alcohol abuse and domestic violence is a common feature among male miners in the region, she says.

The survey results show that in the sampled mines, 40% women miners earn only upto Rs.60 per day, and nobody earns over Rs. 100 per day. Most of the women get bi-weekly payment but close to 20% of the women miners reported that they do not get their payment in time. However, from the overall experience of trying to track the compensation to women miners, it is to be noted that it is not possible to give an exact amount that women miners' earn as in many cases the type of task carried out determines the amount of money given. At times, when women miners put in their labour along with their children and other family members of the family, they get paid as a family so it becomes a group earning rather than a personal earning.

Women and men miners at times get their pay separately. In Jodhpur and Makrana, a majority of the women get their payment separately. When enquired about difference in wage for the same work, Barmer (100%) and Makrana (94%) stated that the women get less pay than men for the same amount of work. In total, 66% women miners felt they got less money than the men for the same amount of work.

“Billi ka jaya To undra hi khave” (the kittens will also eat rats like the cat) is a local saying in Marwari language. It means “profession and work follows for generations”. The saying was quoted by Devi when our team first met her. At that time she was engaged in breaking and filling debris and stones in a tractor with her here daughters in a mine in jodhpur. Devi's husband Mr. Devaram bheel also worked in the mines as unskilled labourer.

Devi says, “My husband Devaram started working in these mines around the age of 12 and within two/three years he got married to me. His addictions (smoking and drinking alcohol), loans and our poor living conditions forced me to work in the mines with him. We started living temporarily near mines. Due to the poor working conditions, hard work and devaram's addictions, devaram got severely affected with tuberculosis (TB). At the age of 30 he becomes totally incapable of working. Our household expense of all 8 members and the expenditure of Devaam's disease forced me and my children to work in the mines”.

It was shocking to note that even 8-year and 11-year-old girls were helping their mother Devi in mine to earn for their livelihood and father's treatment. Devi added that her daughters always dreamt of becoming educated but this education does not provide any employment or money. She says, “nothing will change for poor people like us even after getting educated”. She strongly believes that her children's early work experience would make their body adapted to heavy working conditions. “If children will go to school, they will not be able to do hard work in the future.”

They all work together and fill debris in a tractor. Daily they load about 3 tractor trolleys. The tractor owner maintains the accounts for the amount of labour done in a day, as devi's family is illiterate. But still, most of the times the family does not get paid all their money for their work. devi told that after full days of hard work she gets so tired that she consumes sleeping pills to take a rest. All the family members are anemic.

Now devaram is totally bed ridden. Last year he married off his four daughters and took heavy loans (Rs.60.000) from the mine owner and relatives. Increasing repayments due to heavy interest rates forced them to work hard. To earn more for repayment of loans, he called his married daughters to work with their mother. With the high interest rates and his young daughters working in the mines, the cycle of exploitation and bondage continues with the next generation.....

Disease and death have plagued Gamri Devi's family for decades: her husband passed way twenty years ago; her eldest son and his wife both died of tuberculosis, a result of years working in the mines and lack of money for proper medical treatment. The couple had four children, but two died early from polio. The remaining two – one twelve and the other eight – live with Gamri.

Gamri has one remaining son, but he doesn't stay with her, nor does he provide her with any support. He lives instead in another village, with his wife. After forty years of marriage, he still has no children.

The grandmother and her two grandchildren are now deserted, completely helplessness, dependent on the charity of neighbors. If neighbors give them leftover chapattis, then they eat; otherwise, they starve in an empty kitchen.

Lakshmi, a mineworker from Bikaner feels that the wages paid to women miners are not fair and they should be paid at least Rs. 4,000 per month. She is provided with a mask, but prefers to cover her face with a veil as she feels unable to breathe through the mask. Mine owners do not pay for medical facilities even when workers sustain injuries on site, she says. Workers are not paid for sick days or on holidays and they have no choice but to work under these conditions as there is no shortage of labour and mine workers can replace them at any time they choose. According to Lakshmi, women mine workers are at more of a disadvantage as women labour is more readily available. Women for example are paid on a daily basis and cannot demand for an advance on their salary, a luxury that men are given.

Jawmon, 40, and her husband are both mineworkers. Jawmon has 2 children, one works on the mines with her and the other goes to school. Jawmon started working in the mines after her marriage and has been working for the last 10 years now and does not report any particular health issues. She aspires for a higher salary and access to basic facilities such as drinking water and a toilet. Currently she wastes close to 50 minutes to access a toilet, she says.

HEALTH

The health problems that the women miners mainly face are diseases such as, tuberculosis, anemia and chronic weakness. A striking 95% of women miners in Jodhpur reported to have health problems. In Barmer and Makrana 84% and 81% of women miners said they have health problems. In Bikaner, the percentage of women miners with health problems hovered around 70%. Occupational hazards such as neck and back problems, swollen feet due to wounds from spikes and stones in the mines are also common. The necessary preventions are not taken either due to lack of awareness or lackadaisical attitude on the part of the mine owners.

Clean toilets are supposed to be made available, however along with many things this is not practiced so workers are faced with the undignified prospect of relieving themselves in the open which is particularly troublesome for females, who are more susceptible to harassment. Mine-workers have limited, if any, access to important resources such as first aid kits, registered medical practitioners, or hospitals, which are usually many kilometers away. Their lack of knowledge concerning basic safety training and their right to treatment and compensation often results in permanent disability and early death. Countless stories have been shared highlighting the general malnutrition experienced by all workers. Vegetables and proteins, items that should be included in a nutritious diet for women and children, are largely absent, leading to malnutrition and deficiency syndromes in this particularly vulnerable population.

The degraded health and the lack of prevention only diminish the capacity of the women to work. In addition, due to lack of adequate nutrition, and overwork from responsibilities at home, most women's immunity is weakened making them susceptible to a variety of diseases.

The survey results indicated that most women suffer from body aches and headaches. Health issues such as poor eye sight, stomach ache, cough and skin infections are also quite common among the women miners. These diseases also affect the women miners' ability and capacity to work, and put them under further physical risks.

The survey also indicated that only 11% of the respondents have confirmed that they have had any medical check ups done to assess their health status.

Given that most women miners are married, their health profile is associated with their pregnancy as well. Close to 67% of the respondents reported that they quit work when they get pregnant, but its still significant that 33% women miners work through their pregnancy thus implying the acute financial crisis in their families. Further investigation suggested that close to 41% of the respondents have worked in the mines until the third trimester. None of the women miners said that they have received any special treatment or benefit for pregnancy or maternity from their employers. In Barmer, almost 58% of the respondents said they were carrying out household tasks during the off-duty hours. In Bikaner, Jodhpur and Makrana the percentage of women carrying out household chores at free time is 45, 30 and 12% respectively. Women also spend a lot of their time at home in the upbringing of

their children. Interestingly, in Makrana, almost 70% of the respondents said that when they are not working in the mines, they rest and recuperate at home as they get too tired from working in the mines while pregnant.

Sua, 35, and her husband are both mineworkers. Sua's work on the mines comprises of loading smaller rocks into the tractor. She hurt one of her eyes by a stone and as a result cannot see very well, she says. The nearest medical facility is 5 kms away and while it is free, she has to pay for the medicines which are purchased from a private pharmacy, she says.

The level of economic compulsion is evident from the fact that 31% of the respondents said they join back work within a month after the delivery of their baby. This phenomenon can have multiple effects. Irregular breast feeding can put newborns in physical danger and weaken them tremendously, and at the same time if these babies are carried to the mining sites they are exposed to polluted environment. Furthermore, the mothers' health is also very tender at this point and so hard labour at the mines can cause various physical problems. What is also striking to note that close to 19% of the respondents said that they have been forced or asked to quit their job by their mineowners during pregnancy.

We met many women mine workers in Sambra who told us how they had no choice but to continue working even when they were pregnant. One woman painfully recounted the story of her miscarriage to us. She had already started working in the mine at the age of 30 and continued to work even when she was 4 - 5 months pregnant. On one particularly hot day, she started bleeding from the hard labour and was unable to get to the hospital in time eventually losing the baby. She lost a lot of blood but had no time to recover from the physical or emotional trauma of losing her child and was forced to resume work within 15 days so she could earn money to pay off her hospital bills.

Occupational Diseases

An environment and epidemiological survey carried out in stone quarry workers revealed silicosis in 22.4% workers. About 32% workers showed radiological evidence of tuberculosis. Most of the cases of silicosis were found who had worked for over 10 years.

According to a report by the National Commission of Labour, there are 500,000 miners out of 2 million in the state work in mines containing the toxic silica dust and roughly 41% of them suffer from silicosis. These workers suffer from a severely debilitating disease that could have been prevented had the government and mine-owners been more concerned about health safety in mines. In 1996 GRAVIS and Participatory Research in Asia (PRIA), examined 288 workers from sandstone mines around Jodhpur using Lung Function Tests (LFT) and chest X-ray examinations. The study revealed that a total of 39 (14%) had silicosis with high severity, 80 (28%) with less severity, and 162 (56%) did not have silicosis, or had mild cases. In total, 119 (40%) mine-workers had silicosis to some degree of severity.

A survey conducted by GRAVIS in the Jelu village of the Thar Desert shows that in the mining settlements, around 75% of the women above 45 years of age are widows. These women lost their husbands due to de-habilitating diseases such as tuberculosis and silicosis and mine accidents.

Based on the 21% prevalence rate of silicosis in stone quarry workers from the study by the National Institute of Occupational Health, the number of workers in this industry in Rajasthan likely to have contracted silicosis would be 105,000. So, this shows that men, women and children miners are all affected by silicosis at various levels.

THE ENDLESS DEATHS

Death is no stranger to Kali Bai ji and her family. A widow since 1990, her husband died from silicosis leaving her with two sons and a daughter. Kali Bai ji describes her losses. In 2006, her son Laxman ji died from complications from silicosis and a relapse of tuberculosis. At the age of 25 years old, he had been working in the mines 15 years. His photo rests on the wall in a bedroom and nearby is a bag containing the family's medical records. Inside, there are receipts and x-rays confirming that his death was a result of silico-tuberculosis. It is highly unlikely that the attending physicians reported his case to the proper administrators, which would be useful in documenting the problem of silicosis as well as to offer his widow the chance of receiving compensation. Laxman ji's young widow now lives with his mother. Kali Bai ji's surviving son Shanku ji continues to work in the mines and has recently been experiencing symptoms generally associated with silico-tuberculosis, such as fever and shortness of breath, but his diagnosis has not been confirmed.

Kali Bai ji's daughter Pinu ji, like her mother, is a widow with three children of her own. Her two daughters spend their time in school and help the family when food is scarce by working in the mines while her son works in a nearby hotel. Pinu ji's daughters are 10 and 12 years old so any type of work they do in the mines is in direct violation of the law,

something that the mine owner should be held accountable for. The absence of able-bodied men has made it difficult for Kali Bai ji and Pinu ji to survive and they have been forced to send their children into the very mines that claimed the lives of their fathers'.

As if this wasn't enough, Kali Bai ji explained that she too is living with silico-tuberculosis after spending over 20 years in the mines following her husband's illness. For the past 10 years she has been experiencing fevers, weakness, and coughing. Living below the poverty line, she and her family struggle to survive. She takes medicine when she feels pain and has had to spend extended periods of time in hospitals. The care that she has received, however, has been inadequate; a common complaint of many silicosis patients. Her last hospital stay lasted for 10 days but she was never properly attended to or fully examined by a doctor.

Kali Bai ji is 52 years old but she appears decades older. Her skin hangs off of her emaciated figure and even in this state, she sometimes must go to work if there is not enough food for herself, her daughter, daughter-in-law, and her grandchildren. In light of the dire poverty she and her family struggle with each day, GRAVIS and HEDCON left Kali Beri ji with 100Kg of millet, which should last for a month, in hopes of alleviating the suffering of her family. While promoting methods for sustainable development and self-sufficiency are key elements of HEDCON/GRAVIS initiatives, there are some situations that are just so desperate that immediate relief is needed to help people survive.

POLITICAL

The political profile of women miners is mostly limited to their roles in the miners' union. A woman in one of the mines is the vice president of the miners union. The union tried to improve the lives of women in the mines through various means such as protection from abuse and by providing them with a platform to express their grievances. Some of them now have old age and widow pensions from the government and union plays a big part on encouraging women to work and also help them find this work, even if it is in the mines.

However, when looked at the broader picture with In the survey, a mere 21% of the women said they were members of labour union and only 14% women said that they were aware of the roles and the responsibilities of labour union. The limited role of women in the labour union is further exemplified by the fact that only 19% of the women miners attended the labour union meetings regularly, and only 11% felt that they have a say in the union or that their opinions matter. In Makrana, Bikaner, and Jodhpur, all respondents unanimously agreed in stating that they still do not have any say over the unions' decisions and activities. However, Barmer stands out as close to 42% respondents said that they felt that they can influence the unions activities and that they are listened to when spoken. Out of a total 68% respondents who said they were labour union members, 42% said they feel empowered. Therefore, in Barmer, clearly the women miners are active in their participation and involvement with the union. Apart from the labour unions, various participatory committees such as Village Development Committees (VCD), Village Education

Committee (VEC) and Self Help Groups (SHG) also play a crucial role in empowering and enabling women miners. Through these committees the women miners find a voice for themselves to contribute to their own development and to the development of the overall community. In Barmer, a 270 members are women out of 502 total members, in Makrana there are 282 women members out of a total of 302 members, and in Jodhpur there are 217 women members out of 350 total members.

SELF HELP GROUPS WEAVING DREAM FOR THE FUTURE.

Ganga worked in the mines for 17 years. 3 years ago, she was given a grant from GRAVIS that allowed her to start her own shop. This has provided her with a livelihood at a time in her life when it would have been difficult to continue in the mines.

She and other local women are also members of a self-help group (SHG). They have tried their hands at several different crafts. Firstly, they tried making and selling soaps and detergents. However, they found that they could not produce these at competitive prices. Next, they tried making handbags, but this venture was unsuccessful also.

GRAVIS recently provided the women with sewing machines and they hope to be able to earn some income stitching clothes. Unfortunately, they have not received a lot of training, so it might take some time before they are able to make this a profitable enterprise. This is a problem that seems to occur regularly: SHGs are provided with means of production by NGOs, but are then left without adequate support or training. For this reason, such projects often fail simply because the participants are unsure of how to make them viable. Expensive machines are abandoned and lay dormant, when a little training could have transformed them into a mechanism for social and economic progress.

Having said that, these women retained their enthusiasm and hope for the future. They seemed confident that one day they would be able to offer their daughters a future other than mine work. Just as importantly, these projects offer retired mine workers an avenue of income generation that would not otherwise be available to them. While many members continued to rely on the mines as their primary source of income, they are confident that they will be able to gradually work towards a situation where they are no longer forced to work in the mines but are in control of their own destiny.

THE CONTRIBUTION BY WOMEN MINERS

The number of women miners is rising rapidly. The Global Report by the Mining, Minerals and Sustainable Development (MMSD) Project on Artisanal and Small Scale Mining (Hentschel et al. 2002: 21)^{xviii} pointed out that '[in] contrast to large-scale mining, the involvement of women in small-scale mining activities is generally high.' The number of women participating in informal mining activities has increased over time. Yet, women miners are mostly downplayed as contributors to the mining industry. Women in Indian mining are indeed seen as a non-traditional component, and consequently there is a tendency to deny the fact that women are important segment of the work force. In the light of recent economic changes in industries, there is a need to review women's involvement in the industry and there is also a need for reevaluating the prospects of women miners, and their work in the mines need to be examined.

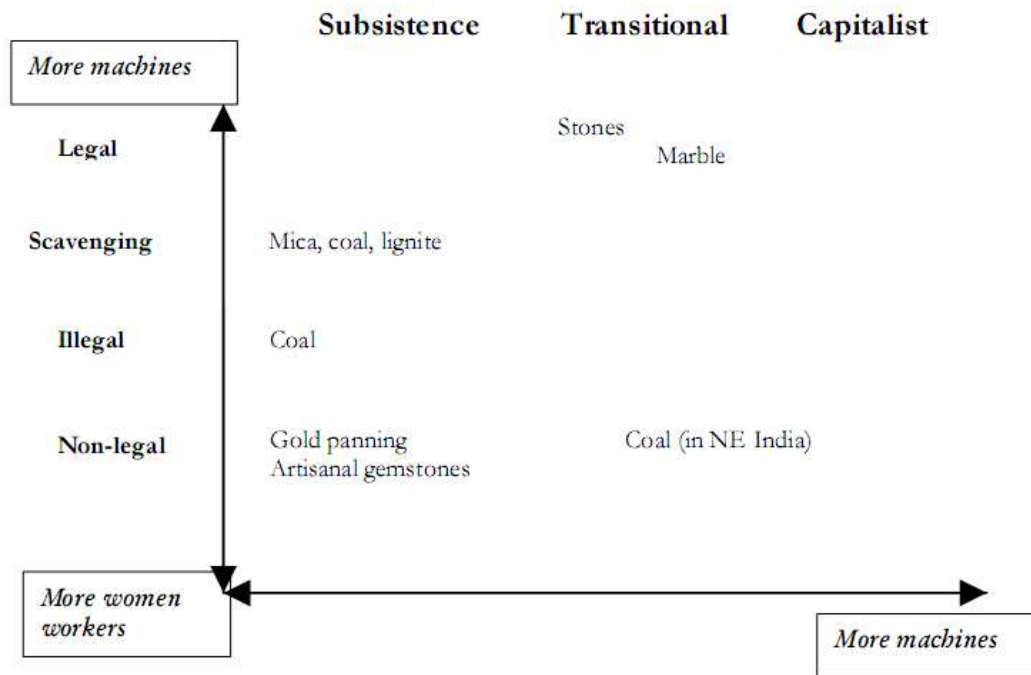
Women workers form the proverbial 'poorest of the poor' group, in urgent need of interventions to improve their freedom and abilities, and also to choose alternative occupations for themselves.

Although mines have a masculine image, women have always been employed in mines in productive roles. Jobs in the mines are sexually segregated, which is also referred to as horizontal segregation, offering women and men restricted entry to particular jobs. For example, local transportation or materials is almost always done in head loads of baskets by women, whereas technical jobs requiring skill or use of machines are almost always reserved for men. The typical notion is that women are docile, possessing the proverbial "nimble fingers", and are not supposed to do heavy work. However, in almost all mines and quarries, it is women who head load the cut mineral ores from the mine site to the crusher, factory or the truck stop and thus one wonders how is it possible for the "nimble fingers" to carry such heavy loads.

Chakravorty (2001: 38) notes:

"Employment of women is very popular in opencast mines because they are more regular and dependable and do not indulge in excessive drinking. Women are in demand also for hand sorting and blending for improving the quality of extracted minerals which can not be gainfully carried out mechanically."

FIGURE 1: PLACE OF WOMEN MINERS IN SMALL MINES AND QUARRIES



Lahiri presented the above figure to depict the place of women in the mining industry. The diagram shows there is increased use of machines with increasing legality factor and capitalist mode of production. However, the maximum concentration of women’s labour is to be broadly found in the non-legal and manual, subsistence mining practices thus showing the subjugated status of the women miners.

The contribution women miners in the mines of Western Rajasthan as explained by the women miners themselves is that they do half of the work and help men finish their work. The quantity of contribution is also half of the work. When asked a woman miner if she thought women worked as hard as men in the mines, she was amused by the question and said that women work harder than men everywhere, whether at home or in the mines.

Women workers are employed as head-load carrying porters, and in stone breaking, cleaning, and other forms of daily-wage labour where they are entirely at the mercy of contractors, and have absolutely no work-safety or security. If there are accidents like mine collapse, where the women are killed or disabled, these are most often hushed up by the families themselves, for fear of police action or facing the company's wrath. They also assist men workers at the work site by taking their tools to the blacksmith for mending, supplying drinking water and tea, and also for loading stone chips onto tractors-trailers.

Most women miners agreed that their payment is not fair and is below par the contribution that they make to the mines. They all feel underpaid but they do not know how can they

change the situation in their favour. Even then a large proportion of women miners contribute substantially to the household income as indicated in the table below.

TABLE 7: CONTRIBUTION TO MONTHLY HOUSEHOLD

	Jodhpur	Barmer	Makrana	Bikaner
500-1000	50%	52.63%	75%	90%
1001-1500	45%	26.31%	6.25%	10%
1501-2000	5.00%	21.06	18.75	0.00
more than 2001	0.00%	0.00%	0.00%	0.00%

Women miners' contribution is clearly underrated and their potential to grow is curbed as indicated by our survey that only 6.5% of the respondents have received any trainings for capacity development. The prevalent gender blindness is obvious as most of the times the question as to why women might be concentrated in the more arduous job of hand-sorting, loading baskets and carrying head loads is ignored. The sexual division of labour in small mines and quarries presented by Chattopadhyay (2002) for mica factories in Giridih in eastern India clearly shows that men tend to do more specialised and skilled jobs that often involve the use of machines. Obviously, head loading of 20-30 kilograms is not considered to be unsuitable for women within the mine.

Turning to another aspect, if the range of people associated or working within the mining industry is scrutinized, it will become visible that women are put into the lowest rung of the industry. Typically, mine (or quarry) owners or the lessees who obtain the permits/licenses/permissions, invest the capital, and hire contractors to run the day to day mining operations. These owners often have local associations. The proportion of women in both these categories is almost zero. Contractors, managers, supervisors, account-keeper and other clerical positions are almost entirely male dominated.

Next comes the mine workers – who fall into three categories: those who dig, those who carry loads, and those who process. Women's labour is usually found to be concentrated in the two latter sub-groups.

Thus, women work in large numbers, in risky and manual jobs in the mines, with little or no safety or security, at low wages and often as part of family labour. They work as transporters or loaders, and as processors of minerals. This leads to the unfortunate lack of identification of women as 'miners' (Susapu and Crispin in 2001 noted this phenomenon also in Papua New Guinea). The culturally rooted gender bias against women miners is further reinforced through many legal instruments that limit women's labour to specific jobs in specific places and times.

Tija Devi, a 55 year old woman mineworker in a mine in Bikaner. Tija Devi had only been working in this mine for a day when we met her. Earlier she was working in another mine for nearly 10 years but the owner transferred her to another mine, perhaps to avoid paying her a pension. After 10 years of working in mines, workers have the right to a pension and hence mine owners work around this either by not registering the workers or simply transferring them every few years to another mine.

Mine workers are forced to live a hand to mouth existence on daily wages. With no prospect of drawing a pension and unable to save, Tija Devi and other workers had no response when we asked them what they would do when they grow too old to work. They are simply unable to fathom how they will cope during their old age.

Are the existing rights and benefits enough? Given that women miners have been working alongside the men for a long time, there are certain provisions/entitlements for women miners in India.

RIGHTS OF WOMEN MINERS

Section 14 Citizens have the right to equality in political, social and economic sectors.

Section 15 (1) No one can be discriminated on the basis of religion, race, caste, sex, and birthplace.

Section 15(3) The government shall make special provisions for women and children.

Section 16 All citizens have equal opportunity for employment and appointment to any office in the government.

Section 39 (A) The government must ensure equal rights to men and women for adequate means of employment.

Section 39 (C) Men and women doing equivalent work shall receive equivalent wages.

Section 39 (E) Citizens should not be compelled out of economic need to perform an activity that is inappropriate for their age, strength, and/or health.

Section (42) The government should make provisions for ensuring fair and humane conditions for health and maternity assistance.

Section (47) The government shall improve living standards and public health. It shall endeavor to ban harmful medicines, except those prescribed by a legitimate authority.

Section 51 (A&D) The government shall reduce practices that diminish women's dignity.

Section 15 (A&E) The constitution implores every citizen to not disrespect women.

MINES ACT OF 1952

This act has developed laws for ensuring the security of mineworkers and protecting them from exploitation. These are:

Clause 20 (1) *There shall be separate toilets in adequate number for male and female workers in the mines. They should be comfortable and accessible to all the employees of the mine at all times.*

Clause 20 (3) *The number of toilets and urinals should be proportional to the number of men and women employed in the mines.*

Clause 46 (1) *Women shall not be engaged in an activity that is,*

(A) below ground

(B) above ground before 6 a.m. and after 7 p.m.

Clause 30 (1) *No person shall work for more than 48 hours a week and 9 hours per day.*

Clause 52 (2) *Maternity leave of twelve weeks shall be provided to the female workers without deduction of wages.*

Reviews of Laws relating to Women

- [The Dowry Prohibition Act,1961\(28 of 1961\)](#)
- [The Commission of Sati\(Prevention\) Act,1987\(3 of 1988\)](#)
- [The Immoral Traffic\(Prevention\) Act,1956](#)
- [The Indecent Representation of Women\(Prohibition\) Act,1956](#)
- [Code of Criminal Procedure,1973](#)
- [Indian Penal Code,1860](#)
- [The Hindu Marriage Act,1955\(28 of 1989\)](#)
- [Compulsory Registration of Marriages\(New Legislation\)](#)
- [Eve Teasing \(New Legislation\)](#)
- [The Child Marriage Restraint Act,1929](#)
- [The Medical Termination of Pregnancy Test,1971\(34 of 1971\)](#)
- [The Guardians and Wards Act,1869](#)
- [The Indian Succession Act,1925\(39 of 1925\)](#)
- [The Minimum Wages Act](#)
- [The Factories Act,1948](#)
- [The Guardians and Wards Act,1860\(8 of 1890\)](#)
- [The Hindu Adoptions and Maintenance Act ,1956](#)
- [The Pre-Natal Diagnostic Technique\(Regulation and prevention of Misuse\) Act,1994](#)
- [The Hindu Succession Act,1956](#)
- [The Christian Marriage Act,1872\(15 of 1872\)](#)
- [National Commission for Women Act,1990\(20 of 1990\)](#)
- [The Bonded Labour System\(Abolition\) Act,1976](#)
- [The Equal Remuneration Act,1976](#)
- [The Special Marriage Act,1954](#)
- [The Inter-State Migrant Workmen\(Regulation of Employment and Conditions of service\) Act,1979](#)
- [The Muslim Personal Law\(Shariat\) Application Act,1937](#)
- [The Hindu Minority and Guardianship Act,1956](#)

- [The Employees' State Insurance Act,1948](#)
- [The Indian Evidence Act,1872\(yet to be reviewed\)](#)
- [The Family Courts Act,1984](#)
- [The Child Marriage Restraint Act,1929\(19 of 1929\)](#)
- [The Foreign Marriage Act,1969\(33 of 1969\)](#)
- [The Contract Labour \(Regulation and Abolition\) Act,1979](#)
- [The Indian Divorce Act,1969\(4 of 1969\)](#)
- The Juvenile Justice(Care and Protection of Children) Act,2000

While the above table states that there are certain benefits, entitlements available to women miners, the survey conducted by this study indicates that there is large gap between policy and practice. The lack of awareness among the women miners add to the problem, as with lack of knowledge comes absence of demands for the entitlements and the rights available to them. Many women miners are still struggling to receive compensation from the mine owners for their husband's death from occupational health hazards.

Nauji Devi (30) and her children stood there, looking onto the dirty, gravel road leading to nowhere. They waited twelve months for the high court to grant death compensations; they are still waiting, only to be greeted each day by sand, dust, and the blowing wind.

Nauji's husband passed away, leaving her and her children with nothing but debt. He worked in the mines for fourteen years, first becoming ill with tuberculosis and then developing silico-tuberculosis. Without health coverage, he had to contract a loan of fourteen thousand rupees for medical expenses. He received a goat from GRAVIS for more nutritional diet, but it could not save him from dying prematurely.

For the last five years, Nauji Devi has been working as a wastage collector, earning twenty to thirty rupees a day. Her eldest daughter (8) takes care of the younger children (6 and 3) at home. When asked if she would like to go to school, the eldest daughter shook her head and pointed to her mother – she wanted to join her mother in the mines soon, so that the family could have one more bread winner.

Women tend to accept poorer working conditions: lower wages than men, no equipment or safety gear or safety education, no toilets or living facilities within close proximity, rare and unpaid holidays and unpaid pregnancies. Often this is associated with physical and sexual exploitation by the contractors, co-workers and other local men. Major accidents mostly claim the lives of men as they are the ones present in the underground jobs. Minor accidents due to blasting or falls are common for both women and men. Simple safety gear such as shoes, masks and helmets is not supplied, nor is training in their use provided. Snake bites and inundations can also claim lives.

Anchi's husband Kalu Ram suffers from liver enlargement and has been absent from the mines for the last four years. He lies in bed everyday, unable to help the struggling family, his condition deteriorating to a point of no return. To pay for Kalu's medical treatment, Anchi has incurred more than twenty thousand rupees in debt; to pay the debt and sustain daily expenditures, her thirteen year old daughter Guddi also works in the mines.

"Shouldn't Guddi go to school?" we asked Anchi Devi.

"What is the use of school?" Anchi retorted, her eyes drooping. "Without food, we have no survival."

Anchi told us that, sometimes, she would be glad to simply survive for another day. After years of backbreaking labor in the mines, she has developed severe health problems: anemia, vertigo, and leucorrhea. In addition to her sickness, Anchi also has to endure constant sexual harassment from mine owners and mine contractors. Although indignant at the abuse, Anchi can only keep quiet and endure the pain, because she fears the consequences of speaking out – offending mine owners means losing her only livelihood.

"We are totally dependent on God!" Anchi let out a cry of desperation, certain that doom lay ahead.

The Focus Group Discussions with most women miners have revealed that they do not know the scale of payment that the government has set up for miners. They do not even know what is the minimum wage amount and have never received compensations for anything.

From their perspective their employment status alone has disadvantages: they are not heard, are regularly treated badly and do not have the opportunity to see beyond what the male dominated mines allow them to see. The increasing trend of informalizing women contribution by keeping them at the bottom of the barrel has sustained the unfair system. And therefore the women miners have a lot of disadvantages despite the fact that their contribution to the industry is extremely important.

CHAPTER 3: GOOD PRACTICES

Despite the overwhelming challenges revolving around the women miners' life, interventions are being made to bring some positive impacts. One of the first interventions has been to protect the livelihood of the miners by bringing 'desirable changes' such as: generation of alternative means of livelihood, regeneration of livelihood sources, and rehabilitation of the displaced population^{xix}.

Efforts have also been made to do away with the 'undesirable changes' that lead to the displacement of a local population. Intervention in this case would be to oppose the activity causing the undesirable change through strong research and documentations and by effective networking, campaigning and advocacy.² It also provides the miners the strength to bargain for work on fair conditions.

While explaining the theory of "capacity expansion" Amartya Sen, famed Economist, said that human capability is one of the core issues that fulfill the idea of 'development as freedom.' He further said that economics should be about developing the capabilities of people by increasing the options available to them. Therefore, to bring about true empowerment of women, enhancement of capability sets of women is a must for social and community development. "Developing the capability of women, would enable the women to think rationally on issues of concern in the region, motivate them to raise their voice in public, develop the personality and leadership skills, effectively participate in local governing institutions, build unity among them and help them bargain and negotiate with the mining company."^{xx}

The Energy and Resource Institute of India (TERI) has carried out several studies in the mines of India to suggest good practices for alleviating the lives of women miners. It has identified three main pillars of interventions: activities for awareness generation, creation of Self Help Groups and alternatives livelihoods, and health related programmes.

Gramin Vikas Vigyan Samiti (GRAVIS) has been working to improve the living and working conditions of the mineworkers for close to seventeen years now. With pioneering initiative such as the first round table conference with the government on this issue and advocacy for the rights of the mineworkers, GRAVIS has carved a path towards a better future.

In collaboration with many organizations such as Zila Gramin Vikas Sansthan (ZGVS), Health, Environment and Development Consortium (HEDCON) and with the support of the International Development Exchange (IDEX) and MISEREOR, GRAVIS has consistently responded to the mineworkers issues.

Starting in the Jodhpur district of Rajasthan in 1991, GRAVIS set out on a mission to empower the poor and backward mining communities. With many subjected to the extreme climactic conditions in the Thar along with the hazardous working environment in the mines, with no shade, toilet facilities, primitive and deadly tools, no sick entitlements, holidays or maternal leave; GRAVIS has sought to combat these issues head-on.

GRAVIS has been working actively for the empowerment of mineworkers in the region for the last 17 years. Some of the efforts that GRAVIS has undertaken for the empowerment of the mining communities are listed below:

EMPOWERMENT

Empowerment entails knowledge, awareness, and capacity to be self reliant to make the right choices. Therefore, GRAVIS has made an attempt to bring about a holistic empowerment among the miners through initiatives in education, health care, and by setting up a network of Self Help Groups.

AWARENESS GENERATION

GRAVIS works to generate awareness on health, educations, rights, government schemes, sanitation, safety etc. Awareness activities provided the platform for workers to converse with others who are in a similar situation and allow them to explain their problems before the people responsible. Also, awareness camps generated internal awareness amongst mine workers and highlight the importance of registering for the union. Such activities are either held close to the vicinity of mines or in villages where mine workers are employed.

UNIONIZATION

Unionization: One of the most important objectives is to organise the seemingly unorganised workers in the mining sector of Rajasthan. Being the second largest employer in the state, it provides the government with income taxes and ensures that the economy remains healthy. Considering this, mine workers are easily forgotten in the system, yet they are arguably the most important. Therefore, this provides a background for forming unions, enabling them to have a greater voice in addressing their plight. Unions were already established in Jodhpur and Nagaur with two new union established in Barmer and Bikaner, in 2005. The membership in these unions is over 8000, with approx. 23% female members. Time to time, training workshops are organized to build their capacity and knowledge on roles, responsibilities, linkages and increasing memberships. Yearly conferences are held, with participation rates of 75% to 80%. Exposure visits also sensitize these unions and tell them ways in which different unions work and support their members. Advocates assist these unions on legal aspects.

ECONOMIC EMPOWERMENT

Self-Help Groups (SHG) are established to address the never ending debt that is burdening so many mine workers in Rajasthan. The unreasonably high interest rates that are placed

onto the mine workers by the mine owners only entrenches their financial situation even deeper into crisis. SHG are formed to give members an opportunity to save money and take out loans from a reliable inter-loaning system managed internally. Furthermore, many SHG have taken out external loans from banks or financial institutions in order to initiate alternative income generating activities. Consequently, some mine workers have established their own businesses and provided alternative income. Ultimately, the scheme gave members the confidence needed to establish a self-dependent life and an avenue out of the mines.

With financial trainings, these women have learned new skills such as managing their household finances. The women are committed members of the SHG and firmly believe that the group can improve their lives. During the rainy season, for example, when they cannot work in the mines, they organize themselves to make bed sheets, some of which are sold to their neighbours to keep the income flowing in.

Vocational trainings: The forgotten workers in the mines are the handicapped or the chronically ill, who may be suffering from diseases or injuries from working amidst the occupational hazards in the mines. Added to this pain, is the burden of constant health expenses. Vocational training targeted these groups so that they can earn an income, without the hard labour associated with the mines. The training included skills in soaps and detergents making, sewing, embroidery, species, pickles, papad, mangori and other hand made products. Products are then sold locally to neighbors, as well as in SHG co-operative shops.

Capital assistance: GRAVIS has provided financial support to most vulnerable women in the mining community so that they can take initiative and earn their livelihood with respect. This assistance is backed by trainings on starting the enterprise and managing funds. Lot of women have now come out of the cycle of exploitation and running their businesses.

Revolving fund: Such funds are provided to SHGs which are then loaned to members. These loans are then repaid to the central SHGs capital fund on a no-interest basis. As the money is received back from one SHG, it is further provided to other SHG for loaning and supporting its members. In the selection of recipients, priority is given to widows and women in dire economic situations.

KRIYA: In 2005-06 GRAVIS launched a new venture called 'Kriya', to bring all the income generating activities of SHG women under one brand. It is an initiative to develop the leadership, income generation and project implementation capacities of the members of SHGs through vocational training as well as training on leadership and project management. The venture will also help the women to establish micro-businesses and enable them to have an access to the marketing world. The SHG members from the mines have also been linked to this venture.

Cooperative shop: Co-operative shops have been established to cater the needs of isolated communities. Interestingly, all of the co-operative shops are owned, operated and managed by female SHG members who either worked, or whose husband worked, in the mines. Once

the shops have been established, and begins to make a steady profit, it is only then that nominal monthly repayment is made on the principal. Furthermore, no interest is paid on the loan.

EDUCATION

Establishment of school: Since the beginning of its efforts with the improving the lives of the miners, GRAVIS has been working on promotion of education through establishment and promotion of school education in mining areas. Many of the earlier established schools are already handed over to state government for management. GRAVIS provides infrastructure (building) teaching learning material, stationary and educational tools for free, as well as uniforms for girls, in order to promote education. Interestingly, 60% of the enrolled children are girls. Considering the number of child mine workers employed in the industry and the family burdens placed on them, these schools provide hope for some children who can look forward to a brighter future.

At present, 9 schools are running with the support of GRAVIS in the four target mining areas and are managed by the Village Development Committee (VDC) and the Village Education Committee (VEC). In VECs women representation is about 50% which plays an important role in promotion of girl education in the target regions.

Teachers' trainings: With a view to build the capacity of the teachers, trainings for them have been organized by GRAVIS. The aim of the trainings was to introduce student friendly teaching tools to the teachers which could be used by them to make education more interesting. The trainings also proved to be an excellent platform to brainstorm and develop innovative strategies to solve some of the challenges the teachers faced in their respective schools. To increase the enrollment of students in the schools and also to increase the retention rate a strategy was jointly developed by the participants.

Exposure for children: Children's workshops are held to discuss issues relating to living in the mining community. The participants of the event range from different sections including government officials, development activists, mine owners, leaders and members from the labour union, school teachers and students. To create interest among the participants, short plays are performed by students with the script developed by professional writers. The issues presented in the plays include household conditions and consequences of addiction. Exposure visits for school children from the mines are also organized to places like zoo, forts and circus etc.

HEALTH CARE

GRAVIS has set up a group of doctors and other health professionals who organize medical camps and first aid workshops in order to treat and educate workers of the occupational hazards in the mines and prevent accidents

Medical Camps: There is an imperative need to focus on the well-being of mine workers, due to the lack of basic occupational health and safety standards being enforced in the mines. Medical camps provided the opportunity for health checks, treatment of minor injuries and diagnosis of chronic disease like TB, silicosis, silico tuberculosis, asthma, gynecological problem etc which are referred to nearby hospitals. Also, many patients are provided the treatments for their various ailments at little to no cost. Furthermore, education on RCH (reproductive and child health), HIV/AIDS, nutrition and eye-care services have recently become incorporated into the camps. People suffering from TB were referred to the governments DOTS programme. In Jodhpur and Bikaner, the major diagnosis were silicosis and TB, whereas Barmer many were diagnosed with skin infections and in Nagaur, asthma.

First aid workshop: The mines are a hazardous and dangerous place to work and possessing knowledge of basic first aid can save lives. In light of this, GRAVIS conducts one-day first aid workshops. Not only are participants educated on how to treat and transport the injured, but as important, they are demonstrated practically on how to do so. Furthermore, mine owners are required by law to provide first aid kits in the workplace, however most mine owners do no. The kits are distributed to those who attended the first aid workshops.

ADVOCACY AND LINKAGES

GRAVIS not only believes in a holistic empowerment, but also gives collaboration and networking through linkages utmost importance. Thus, GRAVIS tries to link the miners with various available options such as legal rights and government schemes. This ensures that the miners are availing the current resources. Advocacy is vital to bring the desired changes to improve the women miners' status. Thus, GRAVIS works on various tracks to advocate the needs and the causes of the miners. Whether it is by organizing the miners and giving them a unified voice through unions, sensitizing media and the gatekeepers of information, appealing to key decision makers or by organizing awareness generation events – the message of the miners have been disseminated wide and large.

With judiciary: Legal assistance workshops were attended by enthusiastic workers who were eager to learn about their rights and the legal actions that are available to them. Advocates and lawyers spoke at the workshops and informed attendees about the legal action they can take against their mine owners. Two advocates were appointed during the programme, who visit the union office twice a month to address the legal requirements and problems of mine workers in the union such as wages, compensations and legal claims and ensuring basic facilities are in the workplace. As a result of the hard work by the advocates, compensation claims worth close to around 1 million INR have been won for mine workers.

With government schemes

- Social security scheme
- Widow scheme
- Old age pension

- Partnership workshop
- BPL cards
- *Intra awas yojana*
- Widow pension

Public Interest Litigations: In May 2006 an application was submitted in the High Court of Rajasthan, requesting a public interest litigation (PIL) and in December 2006, it was admitted and filed against the concerned government departments based on findings that show high prevalence of silicosis in the sandstone mines of Western Rajasthan. In March 2007, the High Court issued notices to the state government to take adequate measures to address this issue, however it is yet to respond. The PIL generated some media exposure on the occupational hazards in the mines and appeared in newspaper and internet sources. GRAVIS and HEDCON are continuing to pursue this notice and ensure that the respective government takes the necessary steps to change the conditions in the mines.

- Public Interest Litigation In high court
- PIL submitted to NHRC on child labour
- PIL submitted to SHRC on silicosis

APPEALS

Meeting with the Honorable President of India: In 2006, representatives from GRAVIS had a meeting with the then honorable President of India, Dr. Abdul Kalam and discussed issues such as securing the rights of mine workers from the effects of silicosis, including measures of prevention and compensation claims. In particular, the representatives humbly requested the President to commission an independent investigation on silicosis in Rajasthan mines, allocate funds for compensation, ensure the necessary steps are taken by government departments with respect to safety and compensation, the enforcement of the Mines Acts 1952, proscribe the use of dry-drilling and impose heavier fines to illegal mine owner activities.

Public hearing: Attended by mine workers, mine owners, government officials, NGO representatives and eminent politicians, public hearings or locally known as 'jan sunwai' provides a forum for the mining community to raise concerns about their general living and occupational grievances. The public hearings raise issues such as women and child labour, low wages, loss of work due to mechanization, lack of facilities & safety equipment, unstable employment, bonded labour, addiction and ineffective & insufficient government policies. Members of the public passionately voiced their problems, with answers directed to them by those responsible for their situation. Solutions were discussed during public hearings such as less mechanization and more employment of human labour, providing funds and bonuses, muster rolls, drinking water facilities, shade, signboards and health kits in some mines. Furthermore, the public hearings have gained tremendous media support and regular news coverage.

MEDIA SENSITIZATION

Media visit: Media visits are organised to see the conditions of the mines and hear the problems of labourers. The media visits the mine areas and developed news stories for publication or for broadcast. It provides media personnel with required information and also links them with the issue. The print and electronic media has visited the mines in the districts, including journalists from Indian national press and TV networks: Aaspass, Rastradut, Panjab Keshri, Samachar Jagat, Mahashveri Time, Evening Plus, National Channel, Rajasthan Patrika, Dainik Bhaskar, Dainik Navjoti etc.

WORKSHOPS AND SEMINARS

To sensitize and get new insights on the issue of miners, workshops and seminars are organized on aspects like child labour, education, basic rights, women, occupational lung diseases, partnerships, etc. It is ensured that all stakeholders like miners, NGO representatives, donors, government officials and eminent personalities which can have influence on the issue participate in such events. This provides a platform to discuss the issue and also to identify new ways to act on the subject. Many a times, government extends its support which helps in bringing sustainable changes in the lives of miners.

RESEARCH AND DOCUMENTATION

Published books included 'The Circle of Life' which analyses the generational problem of mine workers, 'Tales of Woe' reporting on child labour in the mines of Jodhpur and Makrana, and 'Tears of Dust' revealing the vulnerable situation of women mine workers. The aim of publishing these books is to increase awareness about the magnitude of problems facing mine workers in the hope of instigating action by relevant parties. A list of publications is given in annexure 111.

Also, two quarterly magazines on the issue of mineworkers have been published for last 9 years namely Khan Mazdoor (in Hindi language) and Mine worker (in English Language), to further raise public awareness of the mine worker issue. While the Khan Mazdoor magazines are posted to its subscribers throughout India, the Mine worker magazines are delivered electronically to its subscribers, not only in India, but also internationally. The magazines have high circulation with the Khan Mazdoor with approximately 500 subscribers and the Mine worker with over 3500 and growing year-on-year.

CONCLUDING REMARKS

As mining and many other trades continue to be important livelihood options and revenue sources, there is a greater need of working for gender based equity within these environments and for empowering women to enable them to live with dignity and self-respect. In the work of GRAVIS, and of several other organizations working at the grass roots, and through various initiatives focusing on gender equity, numerous initiatives have been taken to bring women forth, in the center, and a good degree of success has been attained. Unfortunately, the trade of mining which is usually considered to be a man's job, has not seen many women focused interventions. Some initiatives taken up by organizations like GRAVIS are still in a very early phase, there is a long way to go, and there is a serious need for making qualitative improvements.

It is never too late though. There is a certainly a great opportunity and potential to recollect from past experiences and develop a future approach based on past learning. It is important to understand that activities focusing on women's rights in mines have a long way to go and there is a need of thorough planning, time-bound visioning and extensive networking and gradual proceeding. It is important to realize the value of some of the recent initiatives revolving around awareness generation, forming Self Help Groups and empowering the groups through microcredit and trainings and provision of healthcare services. It is important to be prepared to work continually to improve the quality of these interventions through gradual learning, consultations and exchange of ideas. Most importantly, it is important to remember that a strong will and a long-term advocacy effort will be required to make change, and to remind that advocacy is about continuity. Advocacy on the rights of women miners is about continuity, and about having a long-term vision. The "never, never, never give up" notion is relevant and needed if long-term changes are to be achieved and sustained.

M. K. Gandhi had once quoted "Women is a companion of man gifted with equal mental capacity". There are very few areas of trade than mining, where there is a greater need to work for women's rights. The findings of this report should facilitate the process ahead as a reference guide and as a catalyst

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